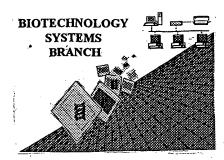
0280

## RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/024, 036
Source: 01/2
Date Processed by STIC: 1/15/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.1 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom, including:

- 1. EFS-Bio (<a href="http://www.uspto.gov/ebc/efs/downloads/documents.htm">http://www.uspto.gov/ebc/efs/downloads/documents.htm</a>, EFS Submission User Manual ePAVE)
- 2. U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
- Hand Carry directly to:
   U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
  - U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
- 4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

## Raw Sequence Listing Error Summary

TOPOD DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 10/024,036												
ERROR DETECTED	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE												
ATTN: NEW RULES CASES:	This may occur if your file												
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."												
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.												
3Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.												
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.												
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.												
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220><223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220><223> section to the subsequent amino acid sequence. This applies to the mandatory <220><223> sections for Artificial or Unknown sequences.												
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:  (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  This sequence is intentionally skipped												
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.												
8 Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000												
9 Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing.  Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.												
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence												
11Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.  Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or  "Unknown." Please explain source of genetic material in <220> to <223> section.  (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)												
Patentin 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.												
13Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.												

AMC/MH - Biotechnology Systems Branch - 08/21/2001

OIPE

RAW SEQUENCE LISTING DATE: 01/15/2002 PATENT APPLICATION: US/10/024,036 TIME: 18:18:40

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Output Set: N:\CRF3\01152002\J024036.raw

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                                                                  see p.S, too
           Molecules and Uses Therefor
  10 <130> FILE REFERENCE: MPI2000-521P1R(M)
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  12 <141> CURRENT FILING DATE: 2001-12-17
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  32 <222> LOCATION: (1243)...(1772)
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  36
                                                    10
  37
               1
  39 aag ctg cgc cgc agc ccg agc cgc ccg gca tcc ccg ccg cct ctg cgc
                                                                         98
  40 Lys Leu Arg Arg Ser Pro Ser Arg Pro Ala Ser Pro Pro Pro Leu Arg
                           20
  41
  43 ccg cgc cgc gcc ccc ggc gcc ccc tcc cca gcg cgc ccc cgg ccg ctc
                                                                         146
  44 Pro Arg Arg Ala Pro Gly Ala Pro Ser Pro Ala Arg Pro Arg Pro Leu
                                           40
                       35
  45
  47 ctc cgc gcc gcg ctc gtc ggc cat ggc ccg gga gaa cgg cga gag cag
                                                                         194
  48 Leu Arg Ala Ala Leu Val Gly His Gly Pro Gly Glu Arg Arg Glu Gln
  51 ctc ctc ctg gaa aaa gca agc tga aga cat caa gaa gat ctt cga gtt
                                                                         242
                                  * Arg His Gln Glu Asp Leu Arg Val
   52 Leu Leu Leu Glu Lys Ala Ser
                                       70
   55 caa aga gac cct cgg aac cgg ggc ctt ttc cga agt ggt ttt agc tga
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   56 Gln Arg Asp Pro Arg Asn Arg Gly Leu Phe Arg Ser Gly Phe Ser
                                   85
               80
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                                                                         338
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                                  100
   63 ggc gct gaa ggg caa gga aag cag cat aga gaa tga gat agc cgt cct
                                                                         386
   64 Gly Ala Glu Gly Gln Gly Lys Gln His Arg Glu * Asp Ser Arg Pro
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   67 gag aaa gat taa gca tga aaa tat tgt tgc cct gga aga cat tta tga
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DATE: 01/15/2002 RAW SEQUENCE LISTING TIME: 18:18:40 PATENT APPLICATION: US/10/024,036

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Output Set: N:\CRF3\01152002\J024036.raw

68 Glu Lys Asp * Ala * Lys Tyr Cys Cys Pro Gly Arg His Leu *	
	12
109 and and and and and all course and	
70 Lyg Pro Lyg Ser Pro Val Leu Gly His Hard 150	
72 Lys F10 Lys	30
73 140 143 75 gct gtt tga ccg gat agt gga gaa ggg gtt tta tac aga gaa gga tgc 53 75 gct gtt tga ccg gat agt gga gaa ggg gtt tta tac aga gaa gga tgc 53	
76 Ala Val * Pro ASP Ser Gri Gra1	
76 Ala val 160 163 165 160 177 177 178 179 179 179 179 179 179 179 179 179 179	78
77 155 160 79 cag cac tot gat cog coa agt ott gga ogo ogt gta ota tot coa cag 57 79 cag cac tot gat cog coa agt ott gga ogo ogt gta ota tot coa cag 57	
on Cln His Ser Asp Pro Pro Ser Dea Gri 123 5 5 180	
81 1/0 and against a tot out gta of a ba	26
83 aat ggg cat cgt cca cag aga cct caa gcc cga daa	
84 Asn Gly His Arg Pro Gin Arg 120	
85 185 185 185 185 185 185 185 185 185 1	74
87 cag tca aga tga gga gtc caa dat dat gut ous s	
88 Gln Ser Arg * Gly val Gli 205	
89 200 and get gag tag cag tag cag tag aac tag /	22
91 aaa aat gga ggg caa agg aga tgt gat gtc cac sys as Ser 92 Lys Asn Gly Gln Arg Arg Cys Asp Val His Cys Leu Trp Asn Ser	
92 Lys Asn Gly Gly Gln Alg Alg 225	
93 215 and against the cag can ago /	70
95 agg cta tgt cgc tcc tga agt cct cgc cca gad dos of the grant of the	
96 Arg Leu Cys Arg Ser 235 240	318
3/ 230 and fac offa call cut you org	310
99 cgt tga ctg ctg gtc cat cgg agt gat tgc ctd odd odd Arg Arg Arg Ser Asp Cys Leu His Leu Ala Leu Arg 100 Arg * Leu Leu Val His Arg Ser Asp Cys Leu His Leu Ala Leu Arg	
100 Arg	866
101 245 250 103 cta ccc tcc ttt tta tga tga aaa tga ctc caa gct ctt tga gca gat 103 cta ccc tcc ttt tta tga tga aaa tga ctc caa gct ctt tga gca gat 103 cta ccc tcc ttt tta tga tga aaa tga ctc caa gct ctt tga gca gat	
104 Tou Dro Ser Phe Leu ' " " " " 270	
104 Lett F10 Bel 1110 265	914
105 260 107 cct caa ggc gga ata tga gtt tga ctc tcc cta ctg gga tga cat ctc 107 cct caa ggc gga ata tga gtt tga ctc tcc cta ctg gga tga cat ctc	
107 cct caa ggc gga ata tga gtt tga ctc tcc ctd ccg gga s 108 Pro Gln Gly Gly Ile * Val * Leu Ser Leu Leu Gly * His Leu 280	
109 275 and gas gas ggs ccc gas	962
109 275 111 cga ctc tgc aaa aga ctt cat tcg gaa cct gat gga gaa gga ccc gaa 111 cga ctc tgc aaa aga ctt cat tcg gaa cct gat gga gga gga ccc gaa	
112 Arg Leu Cys Lys Arg Leu His Ber 325	
113 285 285 270 and tag aga aga aga aga aga aga aga aga aga	1010
113 285 290  115 taa aag ata cac gtg tga gca ggc agc tcg gca ccc atg gat cgc tgg  115 taa aag ata cac gtg tga gca ggc agc tcg gca ccc atg gat cgc tgg  116 * Lys Ile His Val * Ala Gly Ser Ser Ala Pro Met Asp Arg Trp  116 * 117 310	
116 * Lys Ile His Val * Ala Grand State 310	
117 300 stage gat gag cgc cga gat	1058
119 tga cac agc cct caa caa aad cat ccd cgg god Arg Gln Arg Pro Asp	
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121 315 at a gag aga agg att taa tgc cac	1106
123 ccg gaa aaa ctt tgc caa gag caa aas s s 123 ccg gaa aaa ctt tgc caa gag caa aas s s 123 ccg gaa aaa ctt tgc caa gag caa aas s s 123 ccg gaa aaa ctt tgc caa gag caa aas s s s 123 ccg gaa aaa ctt tgc caa gag caa aas s s s s s s s s s s s s s s s s	
124 Pro Glu Lys Leu Cys Gin Glu	1154
125 330 and against ag	1154
127 ggc cgt cgt gag aca tat gag aaa act aca coc 355 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	
128 Gly Arg Arg Glu IIII 191 Glu 212 355	1202
129 343	1202
131 cag ttc aaa tgc aag tgt ttc gag cag cct cag ttc 330 cm. Pro Lys 132 Gln Phe Lys Cys Lys Cys Phe Glu Gln Pro Gln Phe Gly Gln Pro Lys	
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RAW SEQUENCE LISTING

DATE: 01/15/2002 TIME: 18:18:40

PATENT APPLICATION: US/10/024,036

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Output Set: N:\CRF3\01152002\J024036.raw

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122	260				•	365				3	370					375	
133	360 aga	_+~ +		-t-a f	tat a	adc :	aaa a	acc a	aga a	atc (	cct	cag	ctg a	a cad	ctgaa	agac	1252
135	aga Arg	cly i	Lyc s	yla i	Tue (	sor 1	Lvs '	Thr .	Ara i	Ile I	Pro	Gln 1	Leu				
137	13/													1312			
139	gagc	ctgg	gg to	ggag	ayyay	9 99	aycc	ggca	cta	agac:		tttt	aaca	ta ta	aatc	actgg	1372
140	139 gagcctgggg tggagaggag gyagtcggca tetgeogagt tattaacatg taatcactgg 1372 140 tttetatact taatcccatg teatgegace etaggaettt ttttaacatg taatcactgg 1372 141 geegggtgea gtggeteacg cetgtaatce caacacttt gggaggetgag geaggaggae 1432													1432			
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														1612			
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			2 -					$\Lambda\Pi$					7.7				
161	Ala	Ala	Leu	Val	Gly	His	Gly	Pro	Gly	Glu	Arg	Arg	GIU	GIN	Leu	пеп	
4 0		- A					ካካ					00					
163	Leu	Glu	Lys	Ala	Ser	Arg	His	Gln	Glu	Asp	Leu	Arg	Val	GIn	Arg	ASP	
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165	65 Pro	Arg	Asn	Arg	Gly	Leu	Phe	Arg	Ser	Gly	Phe	Ser	Arg	Glu	GIY	ASII	
					Ω5					90					,,		
167	' Trp	Gln	Ala	Leu	Cys	Cys	Glu	Val	Tyr	Pro	Glu	GLY	Ala	GIU	GLY	GIII	
400				100					TOO					110			
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			115					120					127				
17	) L Cys	Cvs	Pro	Gly	Arg	His	Leu	Lys	Pro	Lys	Ser	Pro	Val	Leu	GLY	HIS	
		120					135					T40					
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17	1 145 5 Leu	Ψvr	Ara	Glu	Gly	Cys	Gln	His	Ser	Asp	Pro	Pro	Ser	Leu	Gly	Arg	
47	-				165					1/0							
17	o 7 Arg	val	T.eu	Ser	Pro	Gln	Asn	Gly	His	Arg	Pro	Gln	Arg	Pro	Gln	Ala	
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	_		105					- 200					200				
10	o 1 Leu	i ilian	Tlo	٧al	Lvs	Asn	Glv	Glv	Gln	Arg	Arc	J Cys	Asp	Val	His	Cys	
4.0	^	210					ショう					220					
18	z 3 Leu	ፈቷህ	Δan	Sar	Ara	Leu	Cvs	Arq	Ser	ser	Pro	Arg	Pro	Glu	Thr	Leu	
4.0		-				つてい	i				Z 3 .	,					
T 8	4 225	, , (1.	. c.~	Δνα	וום.Т	T.e.	Va1	His	Arq	Ser	Ası	Cys	Leu	His	Leu	Ala	
т8	o GTI	ı Gin	ser	агу	nea	. <u>.</u>	, , 1				•	-					

DATE: 01/15/2002 RAW SEQUENCE LISTING TIME: 18:18:40 PATENT APPLICATION: US/10/024,036

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Output Set: N:\CRF3\01152002\J024036.raw

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191 Leu His Ser Glu Pro Asp Gly Glu Gly Pro Glu Lys Ile His Val Ala
193 Gly Ser Ser Ala Pro Met Asp Arg Trp His Ser Pro Gln Gln Lys His
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192
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RAW SEQUENCE LISTING

DATE: 01/15/2002 TIME: 18:18:40

PATENT APPLICATION: US/10/024,036

Input Set : A:\seq list.txt

Output Set: N:\CRF3\01152002\J024036.raw

241 <221> NAME/KEY: CDS 242 <222> LOCATION: (1213)...(3159) 244 <221> NAME/KEY: 3'UTR 245 <222> LOCATION: (3160)...(3579) 247 <400> SEQUENCE: 4 248 aacagttctg tcacttggtc gacatttaat acatgtgagt tgtatgaatg cctaaaggcc 60 249 ataccatgct gcctgggaaa cagcaagaac tccatcagtg gcagagacta tcactattat 120 250 tacattaaaa acaaccctga tatcaagcca gttgaaaatg gaccttggag ggaaaaagta 180 251 cgagaaacca tgaaggatca agttcagcga aatgaggaca aatctactac cttgaaattg 240 252 gctgattttg gacttgcaaa gcatgtggtg agacctatat ttactgtgtg tgggacccca 300 253 acttacgtag ctcccgaaat tctttctgag aaaggttatg gactggaggt ggacatgtgg 360 254 gctgctggcg tgatcctcta tatcctgctg tgtggctttc ccccattccg cagccctgag 420 255 agggaccagg acgagetett taacateate cagetgggee aetttgagtt cetececeet 480 256 tactgggaca atatctctga tgctgctaaa gatctggtga gccggttgct ggtggtagac 540 257 cccaaaaagc gctacacagc tcatcaggtt cttcagcacc cctggatcga aacagctggc 600 258 aagaccaata cagtgaaacg acagaagcag gtgtccccca gcagcgaggg tcacttccgg 660 259 agccagcaca agagggttgt ggagcaggta tcatatcygc tgagggctca agatgtgtct 720 260 cttaaagccc caaattccca ctcaacttct catagccatt atgactgatt tagctgaata 780 261 accttgggac agcaaggcct atgtgaccat tctctaaaat atttaagctc gagaatcaca 840 262 gageggaage tgcaaggete etggetgeet geeageegag ggaatetgga gaaaceatte 900 263 ctggggccgc gtggccccgt cgtgcccttg ttctgccctc ggaatggcct tcactcagca 960 264 catcctgaga acagecetet gaageceagg gtegtgaeeg tagtgaaget gggtgggeag 1020 265 cgccccgaa agatcactct gctcctcaac aggcgatcag tgcagacgtt cgagcagctc 1080 266 ttagctgaca tctcagaagc cttgggctct cccagatgga agaatgaccg tgtgaggaaa 1140 267 ctgtttaacc tcaagggcag ggaaatcagg agcgtctctg atttcttcag ggaaggggat 1200 268 gctttcatag ct atg ggc aaa gaa cca ctg aca ctg aag agc att cag gtg 1251 Met Gly Lys Glu Pro Leu Thr Leu Lys Ser Ile Gln Val 269 10 270 272 gct gta gaa gaa ctg tac ccc aac aaa gcc cgg gcc ctg aca ctg gcc 1299 273 Ala Val Glu Glu Leu Tyr Pro Asn Lys Ala Arg Ala Leu Thr Leu Ala 276 cag cac age egt gee eet tet eea agg etg age agg etg ttt age 1347 277 Gln His Ser Arg Ala Pro Ser Pro Arg Leu Arg Ser Arg Leu Phe Ser 278 30 280 aag gct ctg aaa gga gac cac cgc tgt ggg gag acc gag acc ccc aag 1395 281 Lys Ala Leu Lys Gly Asp His Arg Cys Gly Glu Thr Glu Thr Pro Lys 50 284 agc tgc agc gaa gtt gca gga tgc aag gca gcc atg agg cac cag ggg 1443 285 Ser Cys Ser Glu Val Ala Gly Cys Lys Ala Ala Met Arg His Gln Gly 70 65 288 aag atc ccc gag gag ctt tca cta gat gac aga gcg agg acc cag aag 1491 289 Lys Ile Pro Glu Glu Leu Ser Leu Asp Asp Arg Ala Arg Thr Gln Lys 90 85 80 290 292 aag tgg ggg agg ggg aaa tgg gag cca gaa ccc agt agc aag ccc ccc 1539 293 Lys Trp Gly Arg Gly Lys Trp Glu Pro Glu Pro Ser Ser Lys Pro Pro 105 100 296 agg gaa gcc act ctg gaa gag agg cac gca agg gga gag aag cat ctt 1587 297 Arg Glu Ala Thr Leu Glu Glu Arg His Ala Arg Gly Glu Lys His Leu 115 298 110

FNI

Use of n and/or Xaa has been detected in the Sequence Listing. Eview the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 01/15/2002

PATENT APPLICATION: US/10/024,036

TIME: 18:18:41

Input Set : A:\seq list.txt

Output Set: N:\CRF3\01152002\J024036.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:35 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:1

L:35 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 L:656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 L:709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

L:764~M:341~W: (46) "n" or "Xaa" used, for SEQ ID#:9

L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10